

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION GDR-82

Effective December 1, 2011

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **July 2013**.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.*

**Models 2240, 2241, 2250, and 2251 Residential, Non-impact Resistant Garage Doors**, manufactured by:

**C.H.I. Overhead Doors**  
**1485 Sunrise Drive**  
**Arthur, IL 61911**  
**(800) 677-2650**

will be acceptable for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation.

## PRODUCT DESCRIPTION

Model 2240, 2241, 2250, and 2251 doors are Residential sectional overhead doors constructed from galvanized steel with a baked on polyester finish. The 2250 and 2251 model doors are constructed from 25 gauge steel and may be insulated with expanded polystyrene insulation. The 2240 and 2241 model doors are constructed from 24 gauge steel and may be insulated with expanded polystyrene insulation. The doors use a combination of 3" U-bars for horizontal reinforcement. Drawing number, design pressures, dimensions, and glazing dimensions are shown in Table 1.

**Product Identification:** A label will be affixed to the sectional overhead door. The label shall include the manufacturer's name, product name, and the allowable design pressure rating. Glazing is available on certain doors, as shown in Table 1. The installer will verify that the label is clearly marked indicating which door assembly is being installed, in addition to verifying that the design pressure rating is clearly marked.

## LIMITATIONS

The maximum height of each door section shall not exceed 21 inches.

The doors shall have a maximum width of 20 feet. Refer to Table 1 for the maximum sectional overhead door dimensions.

The doors shall have a maximum height of 20 feet. Refer to the tables in this evaluation report for allowable door heights for specific doors.

The doors are reinforced with either 17 gauge or 19 gauge steel struts. The placement and installation of the struts are shown on the design drawings

**Design drawings:** Specified in Table 1.

**Allowable dimensions:** Specified in Table 1.

**Design pressures:** Specified in Table 1.

**Glazing (Optional):** Glass is specified on the detail drawings. Refer to drawings for glazing options for specific doors.

**Impact protection:** These doors have not been tested for windborne debris resistance. Doors that contain glazing may not be installed in the Inland I zone without protection from an impact protective system. All doors (with and without glazing) that are installed in the Seaward zone will need to be protected with an impact protective system.

## INSTALLATION INSTRUCTIONS

**Design Drawings:** The doors shall be installed as specified on the design drawings. The design drawings shall be provided with the door. Each page of the design drawings dated October 21, 2011, and shall be signed, sealed, and dated October 21, 2011 by John Scates, P.E. The following information, as a minimum, shall be provided on the design drawings:

- Drawing Number
- Design Pressures Rating
- Maximum Width and Maximum Height
- Maximum Section Height

**Attachment of Doors to Wall Framing:** In addition to providing the design drawings, the following documents shall be provided with the door: Jamb Attachment Detail, Drawing Number BJA-101-02, BJA-102-01, BJA-103-01, BJA-104-02, and BJA-105-01, signed and sealed on September 28, 2011 by John Scates, P.E. Wood jambs shall be Southern Pine, Spruce-Pine-Fir, or equivalent.

**Note:** The manufacturer's installation instructions and the appropriate design drawings, signed, sealed, and dated by John Scates, PE, shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

**Table 1 – Models 2240, 2241, 2250, and 2250 Sectional Doors**

Maximum Door Width	Maximum Section Height	Horizontal Reinforcemen	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
6'-0"	21"	(2) 17 ga. 3" 50ksi u-bars	+32.5/ -36.7	2	Yes	TZ3-10-01304
7'-11"		(2) 17 ga. 3" 50ksi u-bars	+24.6/ -27.8			
9'-7"		(2) 17 ga. 3" 50ksi u-bars	+20.3/ -23.0			
9'-11"		(2) 17 ga. 3" 50ksi u-bars	+19.7/ -22.2			
10'-0"		(2) 17 ga. 3" 50ksi u-bars	+19.5/ -22.0			
10'-1"		(2) 17 ga. 3" 50ksi u-bars	+19.2/ -21.6			
14'-0"	21"	(4) 17 ga. 3" 50ksi u-bars	+21.4/ -23.8	3	Yes	TZ3-15-01304
15'-11"		(4) 17 ga. 3" 50ksi u-bars	+18.8/ -20.9			
12'-0"	21"	(4) 17 ga. 3" 50ksi u-bars	+24.9/ -27.7	3	Yes	TZ3-16-01304
13'-11"		(4) 17 ga. 3" 50ksi u-bars	+21.5/ -23.9			
16'-0"		(4) 17 ga. 3" 50ksi u-bars	+18.7/ -20.8			
16'-2"		(4) 17 ga. 3" 50ksi u-bars	+18.3/ -20.4			

**Table 1 – Models 2240, 2241, 2250, and 2250 Sectional Doors (Cont.)**

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
16'-3"	21"	(5) 17 ga. 3" 50ksi u-bars	+20.7/ -23.0	3	Yes	TZ3-18-01304
18'-0"		(5) 17 ga. 3" 50ksi u-bars	+18.7/ -20.8			
8'-0"	21"	(3) 19 ga. 3" 50ksi u-bars	+26.1/ -29.5	1	Yes	TZ4-09-01304
9'-0"		(3) 19 ga. 3" 50ksi u-bars	+23.2/ -26.2			
9'-2"		(3) 19 ga. 3" 50ksi u-bars	+22.4/ -25.3			
9'-6"		(3) 19 ga. 3" 50ksi u-bars	+20.8/ -23.5			
7'-0"	21"	(3) 19 ga. 3" 50ksi u-bars	+33.1/ -37.4	2 2	Yes	TZ4-10-01304
7'-11"		(3) 19 ga. 3" 50ksi u-bars	+29.3/ -33.1			
9'-7"		(3) 19 ga. 3" 50ksi u-bars	+24.2/ -27.3			
9'-11"		(3) 19 ga. 3" 50ksi u-bars	+23.4/ -26.4			
10'-0"		(3) 19 ga. 3" 50ksi u-bars	+23.2/ -26.2			
10'-1"		(3) 19 ga. 3" 50ksi u-bars	+22.8/ -25.8			
11'-0"		(3) 19 ga. 3" 50ksi u-bars	+19.2/ -21.7			

**Table 1 – Models 2240, 2241, 2250, and 2250 Sectional Doors (Cont.)**

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
12'-0"	21"	(5) 17 ga. 3" 50ksi u-bars	+29.6/ -32.9	3	Yes	TZ4-16-01304
13'-0"		(5) 17 ga. 3" 50ksi u-bars	+27.3/ -30.4			
13'-7"		(5) 17 ga. 3" 50ksi u-bars	+26.1/ -29.1			
13'-11"		(5) 17 ga. 3" 50ksi u-bars	+25.5/ -28.4			
16'-0"		(5) 17 ga. 3" 50ksi u-bars	+22.2/ -24.7			
16'-1"		(5) 17 ga. 3" 50ksi u-bars	+22.0/ -24.4			
16'-10"	21"	(6) 17 ga. 3" 50ksi u-bars	+23.7/ -26.4	3	Yes	TZ4-18-01304
18'-0"		(6) 17 ga. 3" 50ksi u-bars	+22.2/ -24.7			
8'-0"	21"	(4) 17 ga. 3" 50ksi u-bars	+30.7/ -34.7	1	Yes	TZ5-09-01304
9'-0"		(4) 17 ga. 3" 50ksi u-bars	+27.3/ -30.8			
9'-2"		(4) 17 ga. 3" 50ksi u-bars	+26.3/ -29.7			

**Table 1 – Models 2240, 2241, 2250, and 2250 Sectional Doors (Cont.)**

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
9'-6"	21"	(4) 17 ga. 3" 50ksi u-bars	+24.5/ -27.6	1	Yes	TZ5-09-01304
9'-7"	21"	(4) 19 ga. 3" 50ksi u-bars	+28.5/ -32.1	2	Yes	TZ5-10-01304
9'-11"		(4) 19 ga. 3" 50ksi u-bars	+27.5/ -31.1			
10'-0"		(4) 19 ga. 3" 50ksi u-bars	+27.3/ -30.8			
10'-1"		(4) 19 ga. 3" 50ksi u-bars	+26.9/ -30.3			
10'-11"		(4) 19 ga. 3" 50ksi u-bars	+22.9/ -25.8			
11'-11"		(4) 19 ga. 3" 50ksi u-bars	+19.2/ -21.7			
12'-0"		(4) 19 ga. 3" 50ksi u-bars	+19.0/ -21.4			
10'-2"	21"	(5) 17 ga. 3" 50ksi u-bars	+37.1/ -42.1	2	Yes	TZ5-11-01304
11'-0"		(5) 17 ga. 3" 50ksi u-bars	+31.7/ -36.0			
11'-11"		(5) 17 ga. 3" 50ksi u-bars	+27.0/ -30.6			
14'-0"	21"	(6) 17 ga. 3" 50ksi u-bars	+29.9/ -33.3	3	Yes	TZ5-15-01304
15'-11"		(6) 17 ga. 3" 50ksi u-bars	+26.3/ -29.3			

**Table 1 – Models 2240, 2241, 2250, and 2250 Sectional Doors (Cont.)**

Maximum Door Width	Maximum Section Height	Horizontal Reinforcement	Design Pressures (psf)	Hinge Columns	Glazing Option	Drawing Number
13'-8"	21"	(6) 17 ga. 3" 50ksi u-bars	+30.7/ -34.1	3	Yes	TZ5-16-01304
13'-11"		(6) 17 ga. 3" 50ksi u-bars	+30.1/ -33.5			
16'-0"		(6) 17 ga. 3" 50ksi u-bars	+26.2/ -29.1			
16'-1"	21"	(6) 17 ga. 3" 50ksi u-bars	+25.9/ -28.8	3	Yes	TZ5-16-01304
16'-2"		(6) 17 ga. 3" 50ksi u-bars	+25.7/ -28.5			
16'-9"		(6) 17 ga. 3" 50ksi u-bars	+23.9/ -26.6			
16'-2"	21"	(7) 17 ga. 3" 50ksi u-bars	+29.2/ -32.4	3	Yes	TZ5-18-01304
18'-0"		(7) 17 ga. 3" 50ksi u-bars	+26.2/ -29.1			
9'-2"	21"	(5) 17 ga. 3" 50ksi u-bars	+34.7/ -39.1	1	Yes	TZ6-09-01304
9'-6"		(5) 17 ga. 3" 50ksi u-bars	+32.3/ -36.4			